REMARKS

The Preliminary Amendment is made to eliminate informalities in the specification, claims and abstract resulting from a literal translation of the French text, and to insert headings to conform the application to U.S. practice.

The present application is believed to be in condition for examination, which action is earnestly solicited.

Respectfully submitted,
MILES & STOCKBRIDGE P.C.

By: _____
Edward J. Kondracki
Registration No. 20,604

MILES & STOCKBRIDGE P.C.
1751 Pinnacle Drive, Suite 500
McLean, VA 22102-3833
703-903-9000

Marked Up Version With Markings To Show Changes Made

IN THE SPECIFICATION:

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The field of the invention is that of communication networks and are more particularly, communication networks using[. In order to communicate] data terminal equipment units (DTEs) [adapted to] use various protocols.

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VFER [-] = VFEp - Diff.

IN THE CLAIMS:

1. A method [Method] for reducing congestion in a network layer (16) of a router machine (15) when [it] said network layer (16) accumulates in a queue (20) datagrams (12) to be transmitted through a first network (18), [characterized in that it comprises] comprising:

- a first step (29) [that measures] measuring a fullness level of said queue (20), in order to generate a signal (NIV) based on said fullness level;

- a second step (30) [that detects] detecting any datagram received from said network (18), wherein a field (28) of a first transport layer (6) contains a received window value (VFR);

- a third step (31) [that generates] generating a sent window value (VFE) based on said signal (NIV) in order to process the detected datagram by entering said sent window value (VFE) into said received window value [it] in said field (28), the sent window value (VFE) being at least equal to a remaining window value (VFER)

representing, for each connection established, the number of bytes transmittable at the time it is generated;

- a fourth step (32) that routes [routing] the processed datagram through a second network (17) to a second transport layer (4), which limits said transport layer (4) [its] send rate based on the sent window value (VFE).

2. The method [Method] according to claim 1, [characterized in that] wherein the signal (NIV) is generated by [means of] a binary function that results in an alarm state when the fullness level of the queue (20) exceeds a first threshold value.

3. The method [Method] according to claim 1, [characterized in that] wherein the signal (NIV) is generated by means of a polynomial function proportional to the fullness level and inversely proportional to the capacity of the queue (20).

4. The method [Method] according to claim 2, [characterized in that] wherein the sent window value (VFE) is generated by limiting the received window value (VFR) when the signal (NIV) is in the alarm state.

5. [Device] A device for reducing congestion in a network layer (16) of a router machine (15) when it accumulates, in a queue (20) in a memory of said router machine (15), datagrams (12) to be transmitted through a first network (18), [characterized in that it comprises] comprising means (33) in said memory for detecting any datagram received from said [first] network (18) wherein a field (28) of a first transport layer (6) contains a received window value (VFR), and means for

entering a sent window value (VFE) into said received window value (VFR) [it] based on a fullness level (26) of said queue (20) before routing the detected datagram through a second network (17) to a transport layer (4), said second transport layer(4) configured to limit [which limits] its send rate based on the sent window value (VFE), the sent window value (VFE) being at least equal to a remaining window value (VFER) representing, for each connection established, the number of bytes transmittable at the time said number of bytes [it] is generated.

IN THE ABSTRACT:

A router machine (15) is configured to implement [constituting the router implements] a method [according to the invention] for reducing congestion in its network layer (16) when it accumulates in a queue (20) datagrams (12) to be transmitted through a network (18). The method comprises: a first step (29) that measures a fullness level of [said] queue (20), in order to generate a signal (NIV) based on said fullness level[;]. A [a] second step (30) [that] detects any datagram received from [said] network (18), wherein a field (28) of a transport layer (6) contains a received window value (VFR) [;]. A [a] third step (31) [that] generates a sent window value (VFE) based on [said] signal (NIV) in order to process the detected datagram by entering [said] value (VFE) into said received window value (VFR) [it] in [said] field (28) [;]. A [a] fourth step (32) [that] routes the processed datagram through a network (17) to a transport layer (4), which limits its send rate based on the sent window value (VFE).

[Fig. 4]